

**REMARKS/ARGUMENTS**

**A. Status of the Claims**

Claims 26-62 were pending at the time the Action was mailed. Claims 26-29, 31-34, 36, 46, 47, 50, 53 and 60 have been amended. Support for the amendments of these claims can be found generally throughout the specification, such as in the claims as originally filed. For example, support for the amendment to claim 60 may be found in the specification at, *e.g.*, page 1, lines 5-8. Claims 27, 31-34, 36, 46, 47, 50 and 53 have been amended to correct typographical or grammatical errors and/or to correct claim dependencies. Descriptions of other claim amendments are provided below. No new matter is introduced by any of these claim amendments. Claims 30, 35, 48, 51 and 62 have been cancelled without prejudice or disclaimer. Applicant reserves the right to pursue the subject matter of one or more of the unamended and/or cancelled claims in this or any application that claims priority to this application. Thus, claims 26-29, 31-34, 36-47, 49, 50 and 52-61 are pending.

**B. Interview Summary Comments**

On November 12, 2008, Examiner Stanley and Applicant's representative, Tamara Kale, participated in a teleconference to discuss the misidentification of a piece of cited art in the Final Office Action dated August 19, 2008. Applicant agrees with the Substance of Interview set forth in the November 17, 2008 Interview Summary prepared by the Examiner.

**C. Objections**

Claims 27-29, 35, 46 and 51 are objected to for various reasons. Applicant notes that claims 35 and 51 have been cancelled without prejudice or disclaimer. The remaining objected claims have been amended to address the Examiner's concerns. Reconsideration of the claim objections is respectfully requested.

**D. The Rejections Under 35 U.S.C. § 112, Second Paragraph, Are Overcome**

Claims 34, 41 and 60 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Each of these claims have been amended to address the Examiner's concerns. Applicant therefore respectfully requests withdrawal of the rejections.

**E. The Anticipation Rejection Is Overcome**

Claim 62 is rejected as anticipated by Matsumoto (Japanese Patent 04068095). Applicant notes that claim 62 has been cancelled without prejudice or disclaimer, such that the rejection is moot. However, in case the Examiner intended to reject claim 26 instead of claim 62 as anticipated by this reference, Applicant provides the following comments.

Applicant traverses any suggestion that claim 26, in its unamended form, is anticipated by Matsumoto. Moreover, present claim 26 is not anticipated by this reference. Present claim 26 is drawn to components A, B and at least one of C or D, each of which recites a particular chemical formula. At a minimum, neither component C nor component D is expressly or inherently taught by Matsumoto. As a result, this reference fails to anticipate present claim 26. *See* MPEP § 2131 (to anticipate a claim, a reference must teach each element of the claim).

**F. The Obviousness Rejections Are Overcome**

Several sets of claims are rejected as obvious over several references, such that each of claims 26-61 are said to be unpatentable. As noted in The Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* ("the Guidelines"), the *Graham* factual inquiries are still the proper means by which obviousness should be determined. 72 Fed. Reg. 57256, 57527. These factual inquiries include determining the scope and content of the prior art, and ascertaining the differences between the claimed invention and the prior art. *Id.* (citing *Graham v. John Deere*

*Co.*, 383 U.S. 1 (1966)). As shown below, assessing the cited references in this manner cannot lead to a conclusion of obviousness as asserted by the Examiner.

**1. Machac In View of Joye**

Claims 26-47, 53-55, 57-58 and 61 are rejected are rejected over Machac *et al.* (U.S. Patent 6,608,012) in view of Joye *et al.* (U.S. Patent 5,916,860). It is alleged that Machac teaches the subject matter of claim 26 with respect to a cleaning solution comprising more than 50% of component A (a lactone) and 1-10% of component B (a surfactant having a particular chemical formula). The Examiner concedes that Machac fails to teach the degree of ethoxylation/propoxylation or the number of carbons in the alkyl chain, presumably with respect to component B. Action, page 5. To account for this deficiency, the Examiner asserts that Joye provides this information. *Id.* Applicant respectfully traverses.

As noted above, *KSR* confirmed that the *Graham* Factor Analyses should be used in determining whether a claimed invention is obvious under 35 U.S.C. § 103(a). *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007). Therefore, the following subsections set forth the (1) rejected claims, (2) scope and content of the cited art, (3) the differences between the rejected claims and the cited art, and (4) an explanation as to why these differences are not rendered obvious. The explanation will show that, at a minimum, Joye teaches away from the claimed invention such that there is no apparent reason to combine Joye with Machac. Further, there is no apparent reason why the particular teachings of these references would be selected by a skilled artisan to arrive at the presently claimed invention.

**(a) The rejected claims**

Claim 26 is drawn to a cleaning solution comprising more than 50% by weight of at least one lactone (component A); 1 to 10% by weight of at least one surfactant compound (component

B); and at least another component selected from component C (a benzyl alcohol of a particular formula) and component D (an additional compound of a particular formula). Each of the remaining claims depend from or refer to claim 26, including claim 53, which is drawn to a process for cleaning an item soiled by organic materials, comprising dipping the soiled item into the cleaning solution of claim 26.

**(b) Scope and content of Machac**

The invention of Machac pertains to methods and compositions for paint and coating removal. Machac, col. 1, lines 8-9. The compositions contain a carbonate, a mono-ester and either a dibasic ester or a pyrrolidone. *Id.* at lines 30-64. A mono-ester may be, for example, butyrolactone. *Id.* at col. 2, lines 60-63. Mono-esters are present in the Machac compositions in amounts ranging from about 0.1-90% by weight of the total composition. *Id.* at col. 2, line 66 through col. 3, line 4. Use of a surfactant, such as ethoxylated or propoxylated alkylphenols, in the Machac compositions is optional. *Id.* at col. 4, lines 28-41. Compositions optionally comprise benzyl alcohol as well. *Id.* at col. 3, lines 53-58.

**(c) Differences between the rejected claims and Machac**

While the compositions of Machac require a mono-ester, that mono-ester need not be a lactone; this is in contrast to the presently claimed invention that specifically requires a lactone. In addition, while the presently claimed compositions require a surfactant, the surfactants of Machac are only optional. Another difference between the rejected claims and Machac lies in the Examiner's concession that this reference fails to teach component D of claim 26. Action, page 6.

While Machac explains that mono-esters, such as butyrolactone, may be present in amounts ranging from 0.1-90% by weight of the total composition, the working examples of this

reference do not recite any examples where the mono-ester is present in amounts greater than 50%. For example, compositions comprising the highest amounts of mono-ester in Tables 2 and 3 of Machac still comprise, at most, 50% of mono-ester. Further, these tables show that compositions comprising higher amounts of mono-ester are not always the most efficient. By contrast, the presently claimed compositions comprise more than 50% by weight of at least one lactone.

As another difference, the compositions of Machac always comprise a carbonate and either a dibasic ester or a pyrrolidone. By contrast, compositions of the presently claimed invention do not require any of these three components.

**(d) Scope and content of Joye**

The invention of Joye pertains to a stripping and/or cleaning solution that contains, by volume, (a) 1 to 90% of at least one C<sub>1</sub>-C<sub>4</sub> dialkyl ester of at least one C<sub>4</sub>-C<sub>6</sub> aliphatic diacid; and (b) 99 to 1% of at least one ether selected from the group consisting of ethers with a flash point above 5°C, at least one methoxy group per molecule, and a molecular weight of less than 200. Joye at Abstract. Compositions of Joye may optionally comprise a non-ionic surfactant, such as ethoxylated or ethoxy-propoxylated alkylphenols in a proportion which may be in the range of 0.1% to 10% with respect to the total composition weight. *Id.* at col. 2, lines 54-59. The surfactant may comprise one or two linear or branched alkyl groups of 4-12 carbons and the number of oxyethylene (OE) and/or oxypropylene (OP) units of the non-ionic surfactant may range from 2-100, depending on the desired hydrophilic/lipophilic (HLB) balance desired. *Id.* at col. 3, lines 6-11 and 41-44. A polar aprotic solvent, such as  $\gamma$ -butyrolactone, may optionally be employed in the compositions in amounts ranging from 10-40% by volume with respect to the total composition volume. *Id.* at col. 4, lines 10-16.

**(e) Differences between the rejected claims and Joye**

Polar aprotic solvents, such as  $\gamma$ -butyrolactone, are not required in the compositions of Joye. This is in contrast to the presently claimed compositions that require a lactone. If a polar aprotic solvent is used in a composition of Joye, such as  $\gamma$ -butyrolactone, the amount of this component ranges from 10-40% by volume with respect to the total composition volume. By contrast, a lactone of the presently claimed invention is present in a composition in an amount of greater than 50% by weight. As another difference, the compositions of Joye always comprise a dibasic ester. By contrast, cleaning solutions of the presently claimed invention do not require such a component

In addition, as with Machac, surfactants of Joye are also only optional components. This is in contrast to the presently claimed invention, which specifically requires a surfactant.

**(f) The differences between the rejected claims and Machac and Joye are not obvious differences**

In the context of an obviousness rejection, the Supreme Court explained the importance of “identify[ing] a reason” why a skilled artisan would be prompted to arrive at the presently claimed invention. *KSR*, 127 S. Ct. at 1741. The Court noted that there should be an “explicit” analysis regarding “whether there was **an apparent reason** to combine the known elements **in the fashion claimed** by the patent at issue.” *Id.* (emphasis added). As will be explained, there is no apparent reason to combine Machac and Joye in the manner suggested by the Examiner or otherwise to arrive at the presently claimed invention. Not only does Joye teach away from the presently claimed invention, but viewing the references as a whole would not provide a skilled artisan with any apparent reason to select the particular elements called out by the Examiner to arrive at the presently claimed invention.

*i. Joye teaches away from the claimed invention*

As noted above, mono-esters as described in Machac are present in amounts ranging from 0.1-90% by weight. A mono-ester may, but need not, be a cyclic ester, such as  $\gamma$ -butyrolactone.  $\gamma$ -Butyrolactone may optionally be employed in compositions of Joye as well, but only in amounts ranging from 10-40%. As such, Joye teaches away from a cleaning solution comprising “more than 50% by weight of at least one lactone (component A)” as presently claimed. A “reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the Appellant.” *Tec Air Inc. v. Denso Mfg. Michigan Inc.*, 192 F.3d 1353, 1360 (Fed. Cir. 1999). The fact that Joye would lead a person down a divergent path (*i.e.*, including 10-40% by weight of a lactone in a composition) is a significant factor that weighs in Applicant’s favor. *In re Gurley*, 27 F.3d 551, 554 (Fed. Cir. 1994) (confirming that a prior art reference that “teaches away” from the claimed invention is a significant factor to be considered in determining obviousness).

Moreover, nothing in Machac suggests that compositions comprising greater than 50% of at least one lactone is preferred: that is, Machac does not provide an apparent reason to limit the amount of lactone to greater than 50% by weight. For example, nothing in Tables 2 or 3 of this reference suggest that this percentage range is preferred. Indeed, neither of these tables disclose use of a mono-ester in an amount greater than 50%. Moreover, nothing in these tables suggests to a skilled artisan that increasing the percentage of mono-ester will assuredly lead to an improved outcome (*compare, e.g.*, Table 2, samples A and B, each containing 40% mono-ester, wherein such samples do not always perform better than samples comprising less mono-ester).

As such, Machac fails to provide a skilled artisan with a reason to diverge from the teachings of Joye in this regard to arrive at the presently claimed range of a lactone.

Since Joye teaches away from the claimed invention, and Machac provides no apparent reason to modify Joye in the manner claimed, there can be no apparent reason why a skilled artisan would combine Joye with Machac to arrive at the claimed invention. For at least this reason, the obviousness rejection should be withdrawn.

***ii. Viewing Machac and Joye as a whole does not lead to a conclusion of obviousness***

As indicated above, *KSR* states the following:

***A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art. Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does.***

*KSR*, 127 S. Ct. at 1741 (emphasis added). In assessing whether an apparent reason exists to combine references, one must consider the prior art as a whole. *See* MPEP § 2141. Without conceding that each element of the claimed invention was known in the art, it is Applicant's position that, when Machac and Joye are viewed as a whole, there is no reason why either of these references—viewed together or separately—render the claimed invention obvious.

For example, if one were to combine Machac and Joye, one would first have to choose an optional ingredient from both compositions—a lactone as a mono-ester from Machac, although other mono-esters are available; or a polar aprotic solvent that is an optional ingredient in Joye's compositions, where that solvent is further chosen to be a lactone. Next, one would have to disregard Joye's teachings regarding the amount of lactone to be employed, as discussed above. One would then have to choose another ingredient that is optional to both Machac and Joye, a



surfactant, and further choose a surfactant that has the particular formula presently claimed. If one were to include component C to arrive at the claimed invention, one would have to acknowledge that Machac teaches benzyl alcohol as merely an option in its ingredients. There is no apparent reason why, in view of all of these choices, a skilled artisan would choose these particular components from Machac and Joye and combine them “in the fashion claimed” to produce a cleaning solution. *KSR*, 127 S. Ct. at 1741.

Furthermore, each cited reference requires components or combinations of components to generate a cleaning solution that the present invention does not require: a carbonate and a mono-ester (Machac); a carbonate and a pyrrolidone (Machac); or a dibasic ester (Joye) (collectively, “the required components.”). None of the references suggest that the presently claimed lactone and its claimed weight percentage range, the claimed surfactant, and either component C or component D may be comprised in a solution that may be defined as a cleaning solution that *does not require* these additional ingredients. Indeed, it may be said that there is no reasonable expectation of success regarding the claimed invention when these references, with their required components that are not required in the claimed invention, are considered. *See* MPEP § 2143.02 (“The prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success.”).

Viewing the references as a whole, then, alone or in combination, does not provide one with an apparent reason to combine Machac and Joye as presently claimed. This represents a second reason why the obviousness rejection should be withdrawn.

## **2. Machac, Joye and Nakayama**

Claims 48-51 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Machac in view of Joye, and in further view of Nakayama (U.S. Patent No. 6,423,150). In addition to the

alleged teachings of Machac and Joye as applied above, the Examiner asserts that Nakayama provides information pertaining to component D of the presently claimed invention.

Applicant respectfully traverses. It is noted that independent claim 26 incorporates the subject matter of now-cancelled claim 48, and claim 51 is cancelled. The discussion above regarding Machac and Joye, incorporated herein, demonstrates that these references fail to render claim 26 obvious. Regarding claims 49 and 50, which now depend from claim 26, if an independent claim is not obvious under 35 U.S.C. § 103, then any claim depending therefrom is not obvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, the rejection is overcome.

Despite Applicant's showing that independent claim 26 is not obvious, Applicant provides the following to further establish that claims 49 and 50 are not obvious. In particular, there is no apparent reason why a skilled artisan would combine the cited references in the fashion claimed. As noted above, the *Graham* factual inquiries are appropriate when assessing an obviousness rejection. An analysis of these inquiries are presented below, along with an explanation of how the differences between the rejected claims and the cited art are not obvious differences. In particular, there is no apparent reason to combine the references in the fashion claimed.

**(a) The rejected claims**

Claims 48-51 are drawn to a cleaning solution that comprises, in part, component D, wherein component D is a compound of a particular chemical formula.

**(b) Scope and content of the cited art**

The scope and content of Machac and Joye is presented above and incorporated herein by reference. The invention of Nakayama pertains to the removal of resin solid matter and the

recycling of materials used in such removal. Nakayama at Abstract. The goal of the Nakayama invention is to allow for resin removal with few pollutants relative to previously known methods, and to allow for recycling of materials. *See id.* at col. 1, lines 30-41. The mixture used to remove resin comprises an acidic compound, such as a cyclic ester, including lactones. *Id.* at col. 3, lines 40-42. Organic solvents may also be used, such as cumene. *Id.* at col. 4, line 67.

**(c) Differences between the rejected claims and the cited art**

The Examiner concedes that Machac fails to teach component D (Action, page 6), and the Examiner does not assert that Joye teaches this component. Regarding Nakayama, at least one difference between this reference and the claimed invention lies in the fact that Nakayama fails to teach a surfactant, unlike the presently claimed cleaning solution which requires this component.

**(d) The differences between the rejected claims and the cited art are not obvious differences**

As discussed above, the Supreme Court noted that, for an obviousness rejection based on elements allegedly taught in a combination of references, there should be an “explicit” analysis regarding “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 127 S. Ct. at 1741. With respect to Machac, Joye and Nakayama, there is no such apparent reason. The discussion above regarding the lack of obviousness behind any combination of Machac and Joye is incorporated herein by reference. Nakayama fails to compensate for the deficiencies of Machac and Joye in this regard.

Moreover, the Examples of Nakayama not only fail to teach use of a lactone as the acid component in a composition, but also indicate that the acidic component is present in amounts of less than 5% by weight. Thus, there is no apparent reason why a skilled artisan would use a lactone in an amount greater than 50%, as presently claimed. Indeed, Nakayama’s teaching is

similar to Joye's with respect to the fact that neither reference provides any apparent reason to arrive at the claimed amount of lactone. Applicant therefore respectfully requests that the rejection be withdrawn.

### **3. Machac, Joye and Stewart**

Claims 56, 59 and 60 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Machac in view of Joye, and in further view of Stewart (U.S. Patent No. 6,432,544). In addition to the alleged teachings of Machac and Joye as applied above, the Examiner asserts that Stewart provides information pertaining to dipping a soiled item into a basic aqueous solution, as recited in claim 56, and wherein the soiled item is a mold for optical or ophthalmic lenses, as recited in claims 59 and 60.

Applicant respectfully traverses. In particular, there is no apparent reason why a skilled artisan would combine the cited references in the fashion claimed. As noted above, the *Graham* factual inquiries are appropriate when assessing an obviousness rejection. An analysis of these inquiries are presented below, along with an explanation of how the differences between the rejected claims and the cited art are not obvious differences. In particular, Stewart represents non-analogous art such that there is no apparent reason to combine these references in the fashion claimed. Accordingly, the obviousness rejection is improper.

#### **(a) The rejected claims**

Claim 56 is drawn to a cleaning process that comprises, in part, dipping a soiled item into a basic aqueous solution comprising from 1 to 10% by weight of potassium hydroxide based on the total weight of the aqueous solution. Claims 59 and 60 are drawn to a cleaning process wherein the soiled item is a mold for optical or ophthalmic lenses.

**(b) Scope and content of the cited art**

The scope and content of Machac and Joye is presented above, and incorporated herein by reference. The invention of Stewart pertains to articles having an aminoplast resin photochromic coating prepared from an aminoplast resin. Stewart at Abstract. Stewart explains that it is typical to treat the surface of substrates to be coated prior to applying a coating composition of the present invention for cleaning purposes and promoting adhesion. *Id.* at col. 16, lines 14-42. Surfaces to be coated include, *e.g.*, ophthalmic lenses. *Id.* at col. 18, lines 2-4.

**(c) Differences between the rejected claims and the cited art**

The Examiner concedes that Machac fails to the subject matter of the rejected claims (Action, page 9), and the Examiner does not assert that Joye teaches this component. Regarding Stewart, at least one difference between this reference and the claimed invention lies in the fact that Stewart regards cleaning substrate surfaces in order to allow for good adhesion of a coating composition, and not the surfaces of molds, much less the surfaces of glass molds, as presently claimed.

**(d) The differences between the rejected claims and the cited art are not obvious differences**

As discussed above, the Supreme Court noted that there should be an "explicit" analysis regarding whether there was an apparent reason to combine references in the context of an obviousness rejection. *KSR*, 127 S. Ct. at 1741. With respect to Machac, Joye and Stewart, there is no such apparent reason. The discussion above regarding the lack of obviousness behind any combination of Machac and Joye is incorporated herein by reference. Stewart fails to compensate for the deficiencies of Machac and Joye in this regard.

Stewart, with its focus on aminoplast resin photochromic coating compositions, is non-analogous art such that it would not logically commend itself to the attention of an inventor with

respect to the presently claimed invention. *See* MPEP § 2141.01(a). Indeed, a skilled artisan would have no apparent reason to look to Stewart regarding the claimed subject matter. *See KSR*, 127 S. Ct. at 1741.

For example, with respect to the “methods of removing coatings from surfaces with dipping and heating” that the Examiner asserts renders Stewart as analogous art to the claimed invention (Action, page 9), Applicant respectfully notes that the cleaning Stewart refers to regards cleaning a substrate prior to application of a coating composition. By contrast, the claimed invention regards a cleaning process of a soiled item that is a mold for optical or ophthalmic lenses, where that method may comprise dipping the item into a basic aqueous solution. One of skill in the art looking to clean a mold would not look to see how others clean substrates onto which a coating composition is to be placed, as that is not a function of the claimed mold. Accordingly, Stewart is non-analogous art. The fact that a reference used to support the obviousness rejection is non-analogous art destroys the rejection. *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992) (“In order to rely on a reference as a basis for [an obviousness] rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem, with which the inventor was concerned.”); *see also* MPEP § 2141.01(a). This represents yet another reason why rejected claim is patentable over the cited references.

#### **4. Wilkins and Suwala**

Claims 26 and 52 are rejected under 35 U.S.C. § 103(a) as unpatentable over Wilkins *et al.* (U.S. Patent 5,215,675) in view of Suwala (U.S. Patent 4,812,255). The Examiner asserts that Wilkins teaches every element of the rejected claims except for a non-ionic surfactant

having an HLB value from 8 to 15. Action, page 7. It is said that Suwala accounts for this deficiency such that the rejected claims are obvious. *Id.* at pages 7-8.

Applicant respectfully traverses the rejection. For example, there is no apparent reason why a skilled artisan would combine the cited references in the fashion claimed. As noted above, the *Graham* factual inquiries are appropriate when assessing an obviousness rejection. An analysis of these inquiries are presented below, along with an explanation of how the differences between the rejected claims and the cited art are not obvious differences. In particular, Suwala teaches away from the claimed invention, and there is no apparent reason to combine the references in the fashion claimed.

**(a) The rejected claims**

Claim 26 is drawn to a cleaning solution comprising more than 50% by weight of at least one lactone (component A); 1 to 10% by weight of at least one surfactant compound (component B); and at least another component selected from component C (a benzyl alcohol of a particular formula) and component D (an additional compound of a particular formula). Claim 52 further defines the cleaning solution of claim 26 as having a pH from 4 to 7.

**(b) Scope and content of the cited art**

Wilkins relates to a surface stripping composition comprising a solution which contains between about 1 to about 50 parts by weight of water; between about 1 to about 30 parts by weight of a peroxide; and between about 25 to about 95 parts by weight of a water soluble C<sub>4</sub>-C<sub>10</sub> ester, preferably  $\gamma$ -butyrolactone. Wilkins, col. 2, lines 1-20. The compositions of Wilkins optionally comprise other additional components, such as surfactants (generally from about 0.01 to about 10% by weight, based on the ester and peroxide total amount, which might be ethoxylated or propoxylated alkylphenols and alkoxylated fatty alcohols), chelating agents,

stabilizers, corrosion inhibitors, evaporation retardants, cosolvents or diluents (which might be alcohols and hydrocarbon compounds), coactivators, buffers, and thickeners. *Id.* at col. 2, line 54 through col. 5, line 28.

Suwala relates to a surface stripping composition comprising, based on the composition total weight, from about 5 to 35% of an organic acid (RCOOH); from about 30 to 65% of a glycol ether; and from about 10 to 50% of a compound selected from the group consisting of lactones and lactams having a 5-membered ring. Suwala at col. 2, lines 42-52 and col. 3, lines 20-25. The compositions of Suwala optionally comprise wetting agents, corrosion inhibitors and commonly used thickeners, as well as surfactants (generally from about 1 to 8% by weight, which might be ethoxylated alkylphenols and ethoxylated fatty alcohols). *Id.* col. 3, lines 26-41 and col. 4, lines 3-28. Suwala's claims are drawn to removing uncured paint from a substrate.

**(c) Differences between the rejected claims and the cited art**

As a first difference between the rejected claims and Wilkins, the water-soluble C<sub>4</sub>-C<sub>10</sub> ester of this reference need not be a lactone, whereas the presently claimed invention requires at least one lactone. In addition, this reference fails to require the presence of a surfactant in its compositions, as opposed to the claimed invention, which requires such a component. Moreover, each of compositions A-M of Wilkins teaches use of a surfactant that is a pyrrolidone, which the presently claimed surfactants do not encompass. Wilkins also differs from the claimed invention in that the compositions therein require both water and a peroxide or an acid activator. *See, e.g.*, Table 1 and Table II, particularly compositions E and M. Indeed, composition E demonstrates that no stripping occurs in the absence of peroxide, even if  $\gamma$ -butyrolactone and surfactants are present in the composition.



Suwala's compositions may optionally comprise a lactone, as opposed to the claimed invention which requires a lactone. Moreover, if a lactone is present, Suwala teaches that it is present in an amount ranging from 10-50% by weight, based on the total weight of the composition. This is in contrast to the claimed invention, which teaches that a lactone is present at concentrations more than 50%. Further, surfactants of Suwala are only optional ingredients, whereas a surfactant is required in the presently claimed cleaning solution. Finally, an organic acid is required in the Suwala compositions, but the presently claimed cleaning solution does not require such an acid.

**(d) The differences between the rejected claims and the cited art are not obvious differences**

As discussed above regarding obviousness rejections, there should be an "explicit" analysis regarding "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 127 S. Ct. at 1741. With respect to Wilkins and Suwala, there is no such apparent reason and as such, the obviousness rejection is improper.

***i. Suwala teaches away from the claimed invention***

Water-soluble C<sub>4</sub>-C<sub>10</sub> esters as described in Wilkins may, but need not, be a lactone, such as  $\gamma$ -butyrolactone.  $\gamma$ -Butyrolactone may optionally be employed in compositions of Suwala as well, but only in amounts ranging from 10-50%. As such, Suwala teaches away from a cleaning solution comprising "more than 50% by weight of at least one lactone (component A)" as presently claimed. In a manner similar to the combination of Machac and Joye described above, then, Suwala would lead a person down a divergent path from that taken by Applicant (*i.e.*, including 10-50% by weight of a lactone in a composition). *See Tec Air Inc.*, 192 F.3d at 1360. Such a teaching away is a "significant factor" with respect to non-obviousness. *In re Gurley*, 27 F.3d at 554. For at least this reason, the obviousness rejection should be withdrawn.

*ii. Viewing Wilkins and Suwala as a whole does not lead to a conclusion of obviousness*

In assessing whether an apparent reason exists to combine references, one must consider the prior art as a whole. *See* MPEP § 2141. Without conceding that each element of the claimed invention was known in the art, it is Applicant's position that, when Wilkins and Suwala are viewed as a whole, there is no reason why either of these references—viewed together or separately—render the claimed invention obvious. *See KSR*, 127 S. Ct at 1741.

For example, if one were to combine Wilkins and Suwala, one would first have to choose an optional ingredient from both compositions—a lactone as a water soluble C<sub>4</sub>-C<sub>10</sub> ester Wilkins, although other esters are available and although lactams are another option; or a lactone that is an optional ingredient in Suwala's compositions. Next, one would have to disregard Suwala's teachings regarding the amount of lactone to be employed, as discussed above. One would then have to choose another ingredient that is optional to both Wilkins and Suwala, a surfactant, and further choose a surfactant that has the particular formula presently claimed. There is no apparent reason why, in view of all of these choices, a skilled artisan would choose these particular components from Wilkins and Suwala and combine them "in the fashion claimed" to produce a cleaning solution. *KSR*, 127 S. Ct. at 1741.

Furthermore, each cited reference requires components or combinations of components to generate a cleaning solution that the present invention does not require: water and a peroxide (Wilkins); water and an acid (Wilkins); or an organic acid (Suwala) (collectively, "the required components."). None of the references suggest that the presently claimed lactone and its claimed weight percentage range, the claimed surfactant, and either component C or component D may be comprised in a solution that may be defined as a cleaning solution that *does not require* these additional ingredients. Indeed, it may be said that there is no reasonable expectation of success

regarding the claimed invention when these references, with their required components that are not required in the claimed invention, are considered. *See* MPEP § 2143.02 ("The prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success.").

Viewing the references as a whole, then, alone or in combination, does not provide one with an apparent reason to combine Wilkins and Suwala as presently claimed. This represents a second reason why the obviousness rejection should be withdrawn.

**G. Conclusion**

In view of the foregoing, it is respectfully submitted that each of the pending claims is in condition for allowance, and a Notice of Allowance is earnestly solicited. The Examiner is invited to contact the undersigned attorney at (512) 536-3015 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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